The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claim 1 (currently amended): A cell population cultured *ex vivo* in a culture medium under conditions permitting cells of said cell population to proliferate and, at the same time, reducing a capacity of said cells in utilizing ~~cooper~~ copper, said cells are hence expanded yet not further differentiated as compared to *ex vivo* seeded cells from which said cell population developed.

Claim 2 (originally presented): The cell population of claim 1, in said medium.

Claim 3 (originally presented): The cell population of claim 1, isolated from said medium.

Claim 4 (originally presented): A pharmaceutical composition comprising the cell population of claim 1.

Claim 5 (originally presented): A pharmaceutical composition comprising the cell population of claim 3.

Claim 6 (currently amended): The cell population of claim 1, wherein said ~~deeded~~ seeded cells are hematopoietic cells.

Claim 7 (originally presented): The cell population of claim 6, wherein said seeded cells are hematopoietic stem or progenitor cells.

Claim 8 (originally presented): The cell population of claim 6, wherein said hematopoietic cells are from a source selected from the group consisting of peripheral blood, bone marrow and neonatal umbilical cord blood.

Claim 9 (originally presented): The cell population of claim 1, wherein said seeded calls are enriched for hematopoietic CD34+ cells.

Claim 10 (originally presented): The cell population of claim 1, wherein said seeded cells are selected from the group consisting of non-differentiated stem cells and committed progenitor cells.

Claim 11 (originally presented): The cell population of claim 1, wherein said seeded cells are embryonic stem cells.

Claim 12 (originally presented): The cell population of claim 1, wherein said seeded cells are stem cells.

Claim 13 (originally presented): The cell population of claim 1, wherein said seeded cells are enriched for stem cells.

Claim 14 (originally presented): The cell population of claim 1, wherein said seeded cells are enriched for progenitor cells.

Claim 15 (originally presented): The cell population of claim 1, wherein said seeded cells are enriched for stem and progenitor cells.

Claim 16 (originally presented): The cell population of claim 1, wherein said seeded cells are selected from the group consisting of hematopoietic cells, neural cells and oligodendrocyte cells, skin cells, hepatic cells, embryonic stem cells, plant cells, muscle cells, bone cells, mesenchymal cells, pancreatic cells, chondrocytes and stroma cells.

Claim 17 (currently amended): The cell population of claim 1, wherein said culture medium comprises a transition metal chelator having an affinity for copper in an amount sufficient for providing said conditions for permitting said cells of said cell population to

proliferate and, at the same time, for reducing said capacity of said cells in utilizing ~~cooper~~ copper.

Claim 18 (originally presented): The cell population of claim 17, wherein said transition metal chelator is selected from the group consisting of polyamine chelating agents, ethylendiamine, diethylenetriamine, triethylenetetramine, triethylenediamine, tetraethylenepentamine, aminoethylethanolamine, aminoethylpiperazine, pentaethylenehexamine, triethylenetetramine-hydrochloride, tetraethylenepentamine-hydrochloride, pentaethylenehexamine-hydrochloride, tetraethylpentamine, captopril, penicilamine, N,N'-bis(3-aminopropyl)-1,3-propanediamine, N,N,Bis(2 animoethyl)1,3 propane diamine, 1,7-dioxa-4,10-diazacyclododecane, 1,4,8,11-tetraaza cyclotetradecane-5,7-dione, 1,4,7-triazacyclononane trihydrochloride, 1-oxa-4,7,10-triazacyclododecane, 1,4,8,12-tetraaza cyclopentadecane, 1,4,7,10-tetraaza cyclododecane.

Claim 19 (originally presented): The cell population of claim 17, wherein said culture medium comprises nutrients and cytokines.

Claim 20 (originally presented): The cell population of claim 19, wherein said cytokines are early acting cytokines.

Claim 21 (originally presented): The cell population of claim 20, wherein said early acting cytokines are selected from the group consisting of stem cell factor, FLT3 ligand, interleukin-6, thrombopoietin and interleukin-3.

Claim 22 (originally presented): The cell population of claim 19, wherein said cytokines are late acting cytokines.

Claim 23 (originally presented): The cell population of claim 22, wherein said late acting cytokines are selected from the group consisting of granulocyte colony stimulating factor, granulocyte/macrophage colony stimulating factor and erythropoietin.

Claim 24 (currently amended): The cell population of claim 1, wherein said culture medium comprises zinc in an amount sufficient for providing said conditions for permitting said cells of said cell population to proliferate and, at the same time, for reducing said capacity of said cells in utilizing ~~cooper~~ copper.

Claim 25 (originally presented): A cell population cultured *ex-vivo* in a culture medium and having a reduced intracellular copper content as compared to *ex-vivo* seeded cells from which said cell population developed.

Claim 26 (originally presented): The cell population of claim 25, in said medium.

Claim 27 (originally presented): The cell population of claim 25, isolated from said medium.

Claim 28 (originally presented): A pharmaceutical composition comprising the cell population of claim 25.

Claim 29 (originally presented): A pharmaceutical composition comprising the cell population of claim 27.

Claim 30 (originally presented): The cell population of claim 25, wherein said cells are expanded yet not further differentiated as compared to said *ex-vivo* seeded cells from which said cell population developed.

Claim 31 (currently amended): The cell population of claim 25, wherein said ~~deeded~~ seeded cells are hematopoietic cells.

Claim 32 (originally presented): The cell population of claim 31, wherein said seeded cells are hematopoietic stem or progenitor cells.

Claim 33 (originally presented): The cell population of claim 31, wherein said hematopoietic cells are from a source selected from the group consisting of peripheral blood, bone marrow and neonatal umbilical cord blood.

Claim 34 (originally presented): The cell population of claim 25, wherein said seeded cells are enriched for hematopoietic CD_{34}+ cells.

Claim 35 (originally presented): The cell population of claim 25, wherein said seeded cells are selected from the group consisting of non-differentiated stem cells and committed progenitor cells.

Claim 36 (originally presented): The cell population of claim 25, wherein said seeded cells are embryonic stem cells.

Claim 37 (originally presented): The cell population of claim 25, wherein said seeded cells are stem cells.

Claim 38 (originally presented): The cell population of claim 25, wherein said seeded cells are enriched for stem cells.

Claim 39 (originally presented): The cell population of claim 25, wherein said seeded cells are enriched for progenitor cells.

Claim 40 (originally presented): The cell population of claim 25, wherein said seeded cells are enriched for stem and progenitor cells.

Claim 41 (originally presented): The cell population of claim 25, wherein said seeded cells are selected from the group consisting of hematopoietic cells, neural cells and

oligodendrocyte cells, skin cells, hepatic cells, embryonic stem cells, plant cells, muscle cells, bone cells, mesenchymal cells, pancreatic cells, chondrocytes and stroma cells.

Claim 42 (originally presented): The cell population of claim 25, wherein said culture medium comprises a transition metal chelator having an affinity for copper in an amount sufficient for reducing said intracellular copper content as compared to said *ex-vivo* seeded cells from which said cell population developed.

Claim 43 (originally presented): The cell population of claim 42, wherein said transition metal chelator is selected from the group consisting of polyamine chelating agents, ethylendiamine, diethylenetriamine, triethylenetetramine, triethylenediamine, tetraethylenepentamine, aminoethylethanolamine, aminoethylpiperazine, pentaethylenehexamine, triethylenetetramine-hydrochloride, tetraethylenepentamine-hydrochloride, pentaethylenehexamine-hydrochloride, tetraethylpentamine, captopril, penicilamine, N,N'-bis(3-aminopropyl)-1,3-propanediamine, N,N,Bis)2 animoethyl)1,3 propane diamine, 1,7-dioxa-4,10-diazacyclododecane, 1,4,8,11-tetraaza cyclotetradecane-5,7-dione, 1,4,7-triazacyclononane trihydrochloride, 1-oxa-4,7,10-triazacyclododecane, 1,4,8,12-tetraaza cyclopentadecane, 1,4,7,10-tetraaza cyclododecane.

Claim 44 (originally presented): The cell population of claim 42, wherein said culture medium comprises nutrients and cytokines.

Claim 45 (originally presented): The cell population of claim 44, wherein said cytokines are early acting cytokines.

Claim 46 (originally presented): The cell population of claim 45, wherein said early acting cytokines are selected from the group consisting of stem cell factor, FLT3 ligand, interleukin-6, thrombopoietin and interleukin-3.

Claim 47 (originally presented): The cell population of claim 44, wherein said cytokines are late acting cytokines.

Claim 48 (originally presented): The cell population of claim 47, wherein said late acting cytokines are selected from the group consisting of granulocyte colony stimulating factor, granulocyte/macrophage colony stimulating factor and erythropoietin.

Claim 49 (originally presented): The cell population of claim 25, wherein said culture medium comprises zinc in an amount sufficient for sufficient for reducing said intracellular copper content as compared to said *ex-vivo* seeded cells from which said cell population development.

Claim 50 (originally presented): A cell population cultured *ex-vivo* in a culture medium and having an increased intracellular copper content as compared to *ex-vivo* seeded cells from which said cell population developed.